

| | | | |
|--|--|---|---|
| FORM PTO-1449 (REV.7-80) | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | ATTY. DOCKET NO. 660088.420D1 | EXPRESS MAIL NO. EL773171169US |
| INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary) | | APPLICANTS Christen M. Anderson et al. | S. PTO 03/14/01 jc397 09/09/01 03/1131 |
| | | FILING DATE March 14, 2001 | |

U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
| | AA | | | | | | |

FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION | |
|----|----|-----------------|----------|---------|-------------|----|
| | | | | | YES | NO |
| X3 | AB | EP 0 130 074 A | 01/02/85 | EPO | | |
| X3 | AC | EP 0 477 961 A | 04/01/92 | EPO | | |
| X3 | AD | EP 0 770 610 A | 05/02/97 | EPO | | |
| X3 | AE | WO 98/19714 | 05/14/98 | WIPO | | |
| X3 | AF | WO 98/28415 | 07/02/98 | WIPO | | X |
| X3 | AG | WO 99/07845 | 02/18/99 | WIPO | | |

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|----|----|--|
| X3 | AH | Adrian et al., "Sequences Required for Delivery and Localization of the ADP/ATP Translocator to the Mitochondrial Inner Membrane," <i>Molecular and Cellular Biology</i> 6(2):626-634, 1986. |
| X3 | AI | Aquila et al., "Complete Amino Acid Sequence of the ADP/ATP Carrier from Beef Heart Mitochondria," <i>Hoppe-Seyler's Z. Physiol. Chem.</i> 363:345-349, 1982. |
| X3 | AJ | Block et al., "Atractyloside and Bongrekic Acid Sites in the Mitochondrial ADP/ATP Carrier Protein," <i>FEBS Letters</i> 131(2):213-218, 1981. |
| X3 | AK | Block et al., "Chemical Modifications and Active Site Labeling of the Mitochondrial ADP/ATP Carrier," <i>Methods in Enzymology</i> 125:658-670, 1986. |
| X3 | AL | Block et al., "Fluorescent Probes of the Mitochondrial ADP/ATP Carrier Protein," <i>Methods in Enzymology</i> 125: 639-649, 1986. |
| X3 | AM | Bojanovski et al., "Studies on the Adenine Nucleotide Translocase from Rat Liver Mitochondria," <i>Eur. J. Biochem.</i> 71:539-548, 1976. |
| X3 | AN | Boulay et al., "Photolabeling Approach to the Study of the Topography of the Atractyloside Binding Site in Mitochondrial Adenosine 5'-Diphosphate/Adenosine 5'-Triphosphate Carrier Protein," <i>Biochemistry</i> 22: 477-484, 1983. |
| X3 | AO | Boulay et al., "Synthesis and Properties of Fluorescent Derivatives of Atractyloside as Potential Probes on the Mitochondrial ADP/ATP Carrier Protein," <i>Analytical Biochemistry</i> 128:323-330, 1983. |

| | | |
|----------|-----------------|-----------------|
| EXAMINER | <i>H. M. S.</i> | DATE CONSIDERED |
| | | 6.23.03 |

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

| | | | | | | |
|--|--|--|--|---|-----------------------------------|--|
| FORM PTO-1449 (REV.7-80) | | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | ATTY. DOCKET NO. 660088.420D1 | EXPRESS MAIL NO. EL773171169US | |
| INFORMATION DISCLOSURE STATEMENT <i>(Use several sheets if necessary)</i> | | | | APPLICANTS Christen M. Anderson et al. | | |
| | | | | FILING DATE March 14, 2001 | | |

U.S. PATENT DOCUMENTS

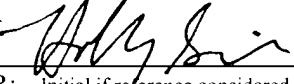
| *EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
| | BA | | | | | | |

FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION | |
|--|----|-----------------|------|---------|-------------|----|
| | | | | | YES | NO |
| | BB | | | | | |

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

| | | |
|----|----|--|
| VS | BC | Brandolin et al, "Partial Purification of an Atractyloside-Binding Protein from Mitochondria," <i>FEBS Letters</i> 46(1):149-153, 1974. |
| VS | BD | Brandolin et al., "Substrate-Induced Modifications of the Intrinsic Fluorescence of the Isolated Adenine Nucleotide Carrier Protein: Demonstration of Distinct Conformational States," <i>Biochemistry</i> 24:1991-1997, 1985. |
| VS | BE | Brunelli and Pall, "A Series of Yeast Shuttle Vectors for Expression of cDNAs and Other DNA Sequences," <i>Yeast</i> 9:1299-1309, 1993. |
| VS | BF | Cozens et al., "DNA Sequences of Two Expressed Nuclear Genes for Human Mitochondrial ADP/ATP Translocase," <i>J. Mol. Biol.</i> 206:261-280, 1989. |
| VS | BG | Fiore et al., "The Mitochondrial ADP/ATP Carrier: Structural, Physiological and Pathological Aspects," <i>Biochimie</i> 80:137-150, 1998. |
| VS | BH | Giraud et al., "Expression of Human <i>ANT2</i> Gene in Highly Proliferative Cells: GRBOX, a New Transcriptional Element, Is Involved in the Regulation of Glycolytic ATP Import into Mitochondria," <i>J. Mol. Biol.</i> 281:409-418, 1998. |
| VS | BI | Green and Reed, "Mitochondria and Apoptosis," <i>Science</i> 281:1309-1312, August 28, 1998. |
| VS | BJ | Klingenberg et al., "Isolation of the ADP, ATP Carrier as the Carboxyatractylate Protein Complex from Mitochondria," <i>Biochimica et Biophysica Acta</i> 503:193-210, 1978. |
| VS | BK | Klingenberg, "The ADP-ATP Translocation in Mitochondria, a Membrane Potential Controlled Transport," <i>J. Membrane Biol.</i> 56:97-105, 1980. |
| VS | BL | Klingenberg, M., "Principles of Carrier Catalysis Elucidated by Comparing Two Similar Membrane Translocators from Mitochondria, the ADP/ATP Carrier and the Upcoupling Protein," <i>Annals New York Academy of Sciences</i> 456:279-288, 1985. |
| VS | BM | Ku et al., "The Human Fibroblast Adenine Nucleotide Translocator Gene," <i>Journal of Biological Chemistry</i> 265(27): 16060-16063, 1990. |

| | | | |
|----------|---|-----------------|---------|
| EXAMINER |  | DATE CONSIDERED | 6.23.03 |
|----------|---|-----------------|---------|

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

| | | | | | | |
|---|--|--|--|----------------------------------|------------------------------------|--|
| FORM PTO-1449 (REV.7-80) | | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | ATTY. DOCKET NO. 660088.420D1 | EXPRESS MAIL NO.. EL773171169US | |
| INFORMATION DISCLOSURE STATEMENT <i>(Use several sheets if necessary)</i> | | APPLICANTS Christen M. Anderson et al. | | | | |
| | | FILING DATE March 14, 2001 | | | | |

U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
| | CA | | | | | | |

FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION |
|--|----|-----------------|------|---------|-------------|
| | | | | | YES NO |
| | CB | | | | |

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

| | | |
|----|----|--|
| VS | CC | Lauquin and Vignais, "Interaction of [³ H]Bongkrekic Acid with the Mitochondrial Adenine Nucleotide Translocator," <i>Biochemistry</i> 15(11):2316-2322, 1976. |
| VS | CD | Lauquin et al., "Isobongkrekic Acid, a New Inhibitor of Mitochondrial ADP-ATP Transport: Radioactive Labeling and Chemical and Biological Properties," <i>Biochemistry</i> 15(11):2323-2327, 1976. |
| VS | CE | Li et al., "A Human Muscle Adenine Nucleotide Translocator Gene Has Four Exons, is Located on Chromosome 4, and is Differentially Expressed," <i>Journal of Biological Chemistry</i> 264(24): 13998-14004, 1989. |
| VS | CF | Li et al., "OXBOX, a Positive Transcriptional Element of the Heart-Skeletal Muscle ADP/ATP Translocator Gene," <i>Journal of Biological Chemistry</i> 265(33): 20585-20588, 1990. |
| VS | CG | Marzo et al., "Bax and Adenine Nucleotide Translocator Cooperate in the Mitochondrial Control of Apoptosis," <i>Science</i> 281:2027-2031, September 25, 1998. |
| VS | CH | Murdock et al., "Up-Regulation of Nuclear and Mitochondrial Genes in the Skeletal Muscle of Mice Lacking the Heart/Muscle Isoform of the Adenine Nucleotide Translocator," <i>The Journal of Biological Chemistry</i> 274(20):14429-14433, May 14, 1999. |
| VS | CI | Piozzi et al., "Structure of Atroctyloside," <i>Chemical Abstracts Acc. No.</i> 67:117201, 1967. |
| VS | CJ | Piozzi et al., "Struttura dell'attrattiloside," <i>Gazetta Chimica Italiana</i> 97(6): 935-954, 1967. (English summary on page 936) |
| VS | CK | Plano et al., "Rickettsia Prowazekii and ATP/ADP Translocase," <i>Annals of the New York Academy of Sciences</i> 590: 397-407, 1990. |
| VS | CL | Rosenberg, <i>Protein Analysis and Purification: Benchtop Techniques</i> , Birkhauser, Boston, pp. 335-347, 1996. |
| VS | CM | Roux et al., "Fluorometric Titration of the Mitochondrial ADP/ATP Carrier Protein in Muscle Homogenate with Atroctyloside Derivatives," <i>Analytical Biochemistry</i> 234:31-37, 1996. |

| | | |
|----------|----------------|-----------------|
| EXAMINER | <i>John S.</i> | DATE CONSIDERED |
| | | 6-23-03 |

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

| | | | | | |
|---|--|--|--|----------------------------------|------------------------------------|
| FORM PTO-1449 (REV.7-80) | | U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | ATTY. DOCKET NO. 660088.420D1 | EXPRESS MAIL NO.. EL773171169US |
| INFORMATION DISCLOSURE STATEMENT <i>(Use several sheets if necessary)</i> | | APPLICANTS | | Christen M. Anderson et al. | |
| | | FILING DATE | | March 14, 2001 | |

U.S. PATENT DOCUMENTS

| *EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|-------------------|----|-----------------|------|------|-------|----------|----------------------------|
| | DA | | | | | | |
| | DB | | | | | | |
| | DC | | | | | | |
| | DD | | | | | | |

FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | COUNTRY | TRANSLATION | |
|--|----|-----------------|------|---------|-------------|----|
| | | | | | YES | NO |
| | DE | | | | | |
| | DF | | | | | |
| | DG | | | | | |

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

| | | |
|----|----|--|
| XS | DH | Santi and Luciani (eds.), <i>Atractyloside: Chemistry, Biochemistry and Toxicology</i> , Piccin Medical Books, Padova, Italy, 1978. |
| XS | DI | Smagula and Douglas, "Mitochondrial Import of the ADP/ADP Carrier Protein in <i>Saccharomyces Cerevisiae</i> ," <i>Journal of Biological Chemistry</i> 263(14): 6783-6790, 1988. |
| XS | DJ | Sterling, "Direct Thyroid Hormone Activation of Mitochondria: The Role of Adenine Nucleotide Translocase," <i>Endocrinology</i> 119(1):292-295, 1986. |
| XS | DK | Stubbs, "Inhibitors of the Adenine Nucleotide Translocase," <i>Pharmac. Ther.</i> 7:329-349, 1979. |
| XS | DL | Tjaden et al. "Expression of a Plastidic ATP/ADP Transporter Gene in <i>Escherichia Coli</i> Leads to a Functional Adenine Nucleotide Transport System in the Bacterial Cytoplasmic Membrane," <i>Journal of Biological Chemistry</i> 273(16): 9630-9636, 1998 |
| XS | DM | Vignais et al., "[60] ³ H- or ³⁵ S-Labeled Atractyloside and Carboxyatractyloside, Atractyloside Derivatives Used for Affinity Chromatography, Photoaffinity Labeling, and Spin Labeling, and ³ H- or ¹⁴ C-Labeled Bongrekic Acid," <i>Methods in Enzymology</i> 55:518-533, 1979. |
| XS | DN | Vignais et al., "Adenosine Diphosphate Translocation in Mitochondria. Nature of the Receptor Site for Carboxyatractyloside (Gummiferin)," <i>Biochemistry</i> 12(8): 1508-1519, 1973. |
| XS | DO | Yan and Sohal, "Mitochondrial Adenine Nucleotide Translocase is Modified Oxidatively During Aging," <i>Proc. Natl. Acad. Sci. USA</i> 95:12896-12901, October 1998. |

| | |
|---------------------------------|-----------------------------------|
| EXAMINER <i>Holly J. Denner</i> | DATE CONSIDERED <i>6-23-03</i> |
|---------------------------------|-----------------------------------|

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).